

Recovery Plan Action Status

Plan Name: Recovery Plan for Gabbro Soil Plants of the Central Sierra Nevada Foothills

Plan Status: Final

Plan Date: 30-Aug-02

Lead Agency: USFWS

Lead Office: Sacramento Fish And Wildlife Office

(916)
414-8600)

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Layne's butterweed (Senecio layneae), Pine Hill ceanothus (Ceanothus roderickii), El Dorado bedstraw (Galium californicum ssp. sierrae), Stebbins' morning-glory (Calystegia stebbinsi), Pine Hill flannelbush (Fremontodendron californicum ssp. decumbens)	2	1.1	Establish cooperative programs with participants from the public and private sector.	Ongoing Not Current	FY 2000 - FY 2004		U.S. Fish and Wildlife Service, California Department of Fish and Game	Other: Information and Education	Contract, Internal Administrative, Internal Technical Assistance	Cost depends on interest and availability of partners.
Layne's butterweed (Senecio layneae), Pine Hill ceanothus (Ceanothus roderickii), El Dorado bedstraw (Galium californicum ssp. sierrae), Stebbins' morning-glory (Calystegia stebbinsi), Pine Hill flannelbush (Fremontodendron californicum ssp. decumbens)	1	1.2.1	Develop and implement outreach plans.	Ongoing Not Current	FY 2000 - FY 2004		U.S. Fish and Wildlife Service	Other: Information and Education	Contract, Internal Administrative, Internal Technical Assistance	Total costs depend on scope of future outreach needs. In 2000 a \$55,900 section 6 grant to CDFG was used to fund outreach & education.
Layne's butterweed (Senecio layneae), Pine Hill ceanothus (Ceanothus roderickii), El Dorado bedstraw (Galium californicum ssp. sierrae), Stebbins' morning-glory (Calystegia stebbinsi), Pine Hill flannelbush (Fremontodendron californicum ssp. decumbens)	2	1.2.2	Develop and implement economic and other incentives.	Not Started			El Dorado County, California, Nevada County, California, U.S. Fish and Wildlife Service, California Department of Fish and Game, Private landowners	Other	Contract, Internal Administrative, Internal Technical Assistance	Cost depends on scope and nature of incentives

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Layne's butterweed (Senecio layneae), Pine Hill ceanothus (Ceanothus roderickii), Stebbins' morning-glory (Calystegia stebbinsi)	2	2.1.2	Protect and secure approximately 47 hectares (116 acres) of the Cameron Park Preserve for multiple species (South of Highway 50).	Discontinued			El Dorado County, California, El Dorado Irrigation District, U.S. Bureau of Land Management, U.S. Bureau of Reclamation, U.S. Federal Energy Regulatory Commission, U.S. Fish and Wildlife Service, California Department of Fish and Game, Private landowners	Acquisition: Fee Title	Contract, Internal Administrative, Internal Technical Assistance	
Layne's butterweed (Senecio layneae), Pine Hill ceanothus (Ceanothus roderickii), El Dorado bedstraw (Galium californicum ssp. sierrae), Pine Hill flannelbush (Fremontodendron californicum ssp. decumbens)	1	2.1.3	Protect and secure Pine Hill preserve for multiple species.	Partially Complete	Prior to FY 1995		El Dorado County, California, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game, California Department of Forestry and Fire Protection, Private landowners	Acquisition: Fee Title	Contract	About 154 hectares (380 acres) in public ownership. Cost estimate is for securing and protecting approximately 241 hectares (595 acres)
Layne's butterweed (Senecio layneae)	2	2.1.4	Protect and secure Penny Lane Preserve for multiple species	Complete	FY 2006	FY 2008	U.S. Bureau of Land Management, U.S. Fish and Wildlife Service	Other: Regulations	Internal Administrative, Internal Technical Assistance	Estimated cost is the cost for designating land as an ACEC by the Bureau of Land Management.

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Layne's butterweed (Senecio layneae)	2	2.1.6	Protect and secure approximately 489 hectares (1,208 acres) of the Salmon Falls/Martel Creek Preserve for multiple species (Southern portion).	Partially Complete	FY 2000 - FY 2004		El Dorado County, California, El Dorado Irrigation District, U.S. Bureau of Land Management, U.S. Bureau of Reclamation, U.S. Federal Energy Regulatory Commission, U.S. Fish and Wildlife Service, California Department of Fish and Game, Private landowners	Acquisition: Fee Title	Contract, Internal Administrative, Internal Technical Assistance	About 179 hectares (442 acres) in public ownership. Cost is estimate of securing and protecting an additional approximately 310 hectares (766 acres).
Layne's butterweed (Senecio layneae)	2	2.2.2	Protect and secure occurrences of Senecio layneae on Eldorado National Forest.	Not Started			El Dorado County, California, U.S. Fish and Wildlife Service, Eldorado National Forest	Other: Regulations	Internal Administrative, Internal Technical Assistance	Cost is for Eldorado National Forest to protect occurrences through their administrative processes.
Layne's butterweed (Senecio layneae), Pine Hill flannelbush (Fremontodendron californicum ssp. decumbens)	1	2.2.4	Protect and secure area southwest of Brownsville for Senecio layneae and decumbent Fremontodendron.	Not Started			U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, Private landowners	Other: Law Enforcement	Internal Technical Assistance	Estimated cost is in the cost for designating land as an ACEC, preserved area should include decumbent Fremontodendron, unless it is determine not to be the listed Fremontodendron.
Layne's butterweed (Senecio layneae)	1	2.2.5	Protect and secure Red Hills for Senecio layneae.	Not Started			U.S. Bureau of Land Management, U.S. Fish and Wildlife Service	Other: Law Enforcement	Internal Technical Assistance	Mining has not been withdrawn.

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Layne's butterweed (Senecio layneae), Pine Hill ceanothus (Ceanothus roderickii), El Dorado bedstraw (Galium californicum ssp. sierrae), Stebbins' morning-glory (Calystegia stebbinsi), Pine Hill flannelbush (Fremontodendron californicum ssp. decumbens)	1	3.2	Hire preserve manager for the Pine Hill formation	Complete	FY 2000 - FY 2004	FY 2006	El Dorado County, California, U.S. Fish and Wildlife Service	Management: Other	Contract, Internal Technical Assistance	
Layne's butterweed (Senecio layneae), Pine Hill ceanothus (Ceanothus roderickii), El Dorado bedstraw (Galium californicum ssp. sierrae), Stebbins' morning-glory (Calystegia stebbinsi), Pine Hill flannelbush (Fremontodendron californicum ssp. decumbens)	1	3.3	Prepare management plans and implement appropriate management in areas inhabited by special status species.	Ongoing Current	Prior to FY 1995		American River Conservancy, El Dorado County, California, California Native Plant Society, Nevada County, California, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, Eldorado National Forest, California Department of Fish and Game	Management, Management: Planning	Internal Field Assistance, Internal Technical Assistance	The Pine Hill Preserve Management Plan was completed in July 2008. There are problems implementing Management in Cameron Park.

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Layne's butterweed (Senecio layneae), Pine Hill ceanothus (Ceanothus roderickii), El Dorado bedstraw (Galium californicum ssp. sierrae), Stebbins' morning-glory (Calystegia stebbinsi), Pine Hill flannelbush (Fremontodendron californicum ssp. decumbens)	1	3.5	Perform baseline monitoring at all areas identified for preservation.	Ongoing Current	FY 2006		El Dorado County, California, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, Eldorado National Forest, California Department of Fish and Game	Research: Population Surveys	Internal Field Assistance, Internal Technical Assistance, Volunteer	Baseline monitoring will be done during the closest appropriate field season to acquisition of habitat/conservation easement, but it may take 10 years to acquire the habitat. Costs depend on which lands are acquired and need monitoring.
Layne's butterweed (Senecio layneae), Pine Hill ceanothus (Ceanothus roderickii), El Dorado bedstraw (Galium californicum ssp. sierrae), Stebbins' morning-glory (Calystegia stebbinsi), Pine Hill flannelbush (Fremontodendron californicum ssp. decumbens)	2	3.6	Develop and implement monitoring plans for special status species populations and habitat in all areas being proposed for preservation.	Unknown			U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game	Management: Planning	Internal Field Assistance, Internal Technical Assistance	Implementation costs depend on land acquisition, survey methods identified in monitoring plan and adaptively updated in response to management.

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Layne's butterweed (Senecio layneae), Pine Hill ceanothus (Ceanothus roderickii), El Dorado bedstraw (Galium californicum ssp. sierrae), Stebbins' morning-glory (Calystegia stebbinsi), Pine Hill flannelbush (Fremontodendron californicum ssp. decumbens)	2	4.2.1	Conduct general surveys	Ongoing Current	FY 2005		U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Population Surveys	Contract, Internal Field Assistance, Internal Technical Assistance, Species Expert	These surveys will be conducted as preserves are acquired. Habitat acquisition may take 10 or more years for some sites; costs depend on timing and area acquired. Included in implementation of task 3.6
Layne's butterweed (Senecio layneae)	2	4.2.2.4	Survey historic and potential habitat on serpentine soils for Senecio layneae (El Dorado County).	Not Started			U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Population Surveys	Contract, Internal Field Assistance, Internal Technical Assistance, Species Expert	
Layne's butterweed (Senecio layneae)	2	4.2.2.6	Survey potential habitat for Senecio layneae in Yuba County.	Not Started			U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Habitat Status, Research: Population Surveys	Contract, Internal Field Assistance, Internal Technical Assistance, Species Expert	And possibly for Fremontodendron californicum ssp. decumbens
Layne's butterweed (Senecio layneae)	2	4.2.2.7	Survey potential habitat in Tuolumne County for Senecio layneae	Not Started			U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Habitat Status, Research: Population Surveys	Contract, Internal Field Assistance, Internal Technical Assistance, Species Expert	

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Layne's butterweed (Senecio layneae)	2	5.12	Conduct grazing study on Senecio Layneae on Red Hills Management area.	Unknown			U.S. Bureau of Land Management	Research: Management Techniques	Internal Field Assistance	
Layne's butterweed (Senecio layneae)	2	5.13	Conduct genetic study of Senecio layneae on the Red Hills (Tuolumne County).	Partially Complete	FY 1995 - FY 1999		U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Genetics	Contract, Graduate Student, Internal Technical Assistance	
Layne's butterweed (Senecio layneae)	2	5.15	Conduct genetic study on Senecio layneae southwest of Brownsville (Yuba County).	Partially Complete	FY 1995 - FY 1999		U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Genetics	Contract, Graduate Student, Internal Technical Assistance	
Layne's butterweed (Senecio layneae), Stebbins' morning-glory (Calystegia stebbinsi)	1	5.3	Determine feasibility of habitat restoration.	Planned	FY 2006		El Dorado County, California, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game, California Department of Forestry and Fire Protection	Research: Management Techniques	Contract, Internal Field Assistance, Internal Technical Assistance	Calystegia stebbinsi; Senecio layneae. Cost and timing dependent on land acquisition, survey results.
Layne's butterweed (Senecio layneae), Pine Hill ceanothus (Ceanothus roderickii), Stebbins' morning-glory (Calystegia stebbinsi), Pine Hill flannelbush (Fremontodendron californicum ssp. decumbens)	1	5.4	Conduct necessary demographic studies at the Cameron Park preserve.	Not Started			U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Competition, Research: Demographic Studies	Contract, Internal Field Assistance, Internal Technical Assistance	Senecio layneae, Ceanothus roderickii, Galium californicum ssp. sierrae, Wyethia reticulata
Layne's butterweed (Senecio layneae), Pine Hill ceanothus (Ceanothus roderickii), Stebbins' morning-glory (Calystegia stebbinsi)	2	5.5	Conduct necessary genetic and systematic studies at Cameron Park preserve.	Partially Complete	FY 1995 - FY 1999		U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Genetics, Research: Taxonomic Studies	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert	Genetics-Calystegia stebbinsi, Senecio layneae and potentially Ceanothus roderickii; Systematics - Ceanothus roderickii.

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Layne's butterweed (Senecio layneae), Pine Hill ceanothus (Ceanothus roderickii), El Dorado bedstraw (Galium californicum ssp. sierrae)	1	5.6	Conduct necessary demographic, reproductive, and fire research at the Pine Hill preserve.	Partially Complete	FY 2008		U.S. Fish and Wildlife Service, California Department of Fish and Game, California Department of Forestry and Fire Protection	Research: General	Contract, Internal Field Assistance, Internal Technical Assistance, Species Expert	Demographics - Galium californicum ssp. sierrae, Ceanothus roderickii, Senecio layneae, Wyethia reticulata Reproduction - Galium californicum ssp. sierrae Fire and disturbance - Senecio layneae
Layne's butterweed (Senecio layneae), Pine Hill ceanothus (Ceanothus roderickii), Pine Hill flannelbush (Fremontodendron californicum ssp. decumbens)	2	5.7	Conduct necessary research at the Pine Hill preserve	Partially Complete	FY 1995 - FY 1999		U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Genetics, Research: Taxonomic Studies	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert	Genetics- Senecio layneae and potentially Ceanothus roderickii; Systematics - Ceanothus roderickii; disease assessment and study- Fremontodendron californicum ssp. decumbens.
Layne's butterweed (Senecio layneae), Pine Hill ceanothus (Ceanothus roderickii), El Dorado bedstraw (Galium californicum ssp. sierrae), Stebbins' morning-glory (Calystegia stebbinsi)	1	5.8	Conduct necessary studies at the Salmon Falls preserve.	Not Started			U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Competition, Research: Demographic Studies, Research: General	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert	Demographics - Calystegia stebbinsi, Galium californicum ssp. sierrae, Ceanothus roderickii, Senecio layneae, Wyethia reticulata Reproduction - Galium californicum ssp. sierrae Fire and disturbance - Senecio layneae
Layne's butterweed (Senecio layneae), Pine Hill ceanothus (Ceanothus roderickii), Stebbins' morning-glory (Calystegia stebbinsi)	2	5.9	Conduct necessary genetic, systematic, and pollination biology studies at the Salmon Falls/Martel Creek preserve.	Ongoing Not Current	FY 1995 - FY 1999		U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Disease, Research: General, Research: Genetics, Research: Taxonomic Studies	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert	Genetics- Calystegia stebbinsi, Senecio layneae, and potentially Ceanothus roderickii; Systematics- Ceanothus roderickii Pollination biology- Senecio layneae, Wyethia reticulata

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Layne's butterweed (Senecio layneae)	2	6.1.3	Collect and store viable seeds for disjunct populations of Senecio layneae.	Discontinued	FY 2000 - FY 2004		Rancho Santa Ana Botanic Garden, University of California at Berkeley, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Other Information, Research: Propagation, Research: Reintroduction	Contract, Internal Field Assistance, Internal Technical Assistance	
Layne's butterweed (Senecio layneae), Pine Hill ceanothus (Ceanothus roderickii), El Dorado bedstraw (Galium californicum ssp. sierrae), Stebbins' morning-glory (Calystegia stebbinsi), Pine Hill flannelbush (Fremontodendron californicum ssp. decumbens)	2	6.2	Initiate enhancement, repatriation, or introductions where appropriate.	Ongoing Current	FY 2008		U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game	Management: Other, Management: Reintroduction	Internal Field Assistance	Costs dependent on determined need for action. Lead party will depend on local land ownership.
Layne's butterweed (Senecio layneae), Pine Hill ceanothus (Ceanothus roderickii), El Dorado bedstraw (Galium californicum ssp. sierrae), Stebbins' morning-glory (Calystegia stebbinsi), Pine Hill flannelbush (Fremontodendron californicum ssp. decumbens)	2	8	Perform metapopulation-type analysis.	Not Started			U.S. Geological Survey, Biological Resources Division, U.S. Fish and Wildlife Service	Research: Genetics, Research: Migration, Research: Other Information	Contract, Internal Field Assistance	